

Finance 40500
Group Assignment #4

- 1) Suppose that General Electric is anticipating European sales over the next month to be E 12,500,000. The current EUR/USD exchange rate is 1.2665, but GE is anticipating the dollar to appreciate. To hedge this risk, GE enters into a 30 day forward contract to sell Euro for dollars at 1.2550.
 - a) Suppose that in 30 days, the Euro is trading at 1.2500. Calculate GE's loss/gain from the forward.
 - b) How could GE accomplish this transaction using Euro futures?

- 2) Suppose that the annual return on US TBills is 5.5% while the return on comparable British assets is 7.5%. The current GBP/USD exchange rate is 1.8835. One year forward contracts are currently trading at 1.8370.
 - a) How would you use this information to make risk free profits?
 - b) Calculate the zero arbitrage forward rate (i.e. the forward rate that equates the dollar returns of British and US bonds).
 - c) Suppose that the US tax rate for interest earned is 10% while the corresponding British tax rate is 35%. How would your answers to (a) and (b) change?

- 3) Suppose that you estimated the following regression:

$$\Delta\%e = \alpha + \beta\left(\frac{F - e}{e}\right)$$

Where the left hand variable is the annual percentage change in the EUR/USD exchange rate (expressed as a percentage) and the right hand variable is the current 1 year Euro forward premium/discount (also as a percentage). Your estimates for alpha and beta are .05 and beta equals 2. How would you use this information to make money? Give a numerical example.